United States Patent and Trademark Office OMB No. 0651-0027 (exp. 6/30/2005) ET 103326331.\_. 49938 To the Director of the U.S. Patent and Trademark Office: Please record the attached documents or the new address(es) below. 2. Name and address of receiving party(ies) Name of conveying party(ies)/Execution Date(s): (1) Sung-Hyuck LEE; (2) Jong-Ho BANG Name: Samsung Electronics Co., Ltd. Internal Address: Execution Date(s) September 25, 2006 Street Address: 416, Maetan-dong, Yeongtong-gu Additional name(s) of conveying party(ies) attached? ☐ Yes ☒ No 9. Nature of conveyance: City: Suwon-si Assignment Assignment Merger State: Gyeonggi-do ☐ Change of Name ☐ Security Agreement Country: Republic of Korea Zip: 442-742 Government Interest Assignment Executive Order 9424, Confirmatory License Additional name & address attached? ⊠ Yes ☐ No Other This document is being filed together with a new application. 4. Application or patent number(s): B. Patent No.(s) A. Patent Application No.(s) Additional numbers attached? 

☐ Yes ☐ No 6. Total number of applications and patents 5. Name and address to whom correspondence involved: concerning document should be mailed: 7. Total fee (37 CFR 1.21(h) & 3.41) \$ 40.00 Name: Roylance, Abrams, Berdo & Goodman, L.L.P. Authorized to be charged by credit card Internal Address: Suite 600 Authorized to be charged to deposit account Street Address: 1300 19th Street, NW None required (government interest not affecting title) 8. Payment Information City: Washington a. Credit Card Last 4 Numbers Zip: 20036 State: D.C. Phone Number: (202) 659-9076 Expiration Date

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George C. Eckert

Name of Person Signing

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Fax Number: (202) 659-9344

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9. Signature:

John E. Holmes

October 18, 2006

Date

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Docket Number 49938

1. Name of Receiving Parties (Cont. of the Information Item 1)

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PATENT REEL: 018437 FRAME: 0838

## <u>ASSIGNMENT</u>

WHEREAS, We, (1) Sung-Hyuck LEE, citizen of the Republic of Korea; (2) Jong-Ho BANG, citizen of the Republic of Korea; (3) Henning Schulzrinne, citizen of Germany; and (4) Charles-Qi Shen, citizen of the Republic of China; residing respectively at (1) #109-507, Hyosungtown, 1071, Hyosung Apt., Bondeok2(i)-dong, Nam-gu, Daegu, 705-751, Republic of Korea; (2) #728-1302, Hyundai Apt., Salgugol 7-danji Apt., Yeongtong-dong, Yeongtong-gu, Suwon-si, Gyeonggi-do, 443-736, Republic of Korea; (3) 313, Westview Ave, Leonia, NJ 07605, United States of America; and (4) Columbia University Dept. of Computer Science, 1214, Amsterdam Avenue, MC 0401, N.Y., N.Y. 10027, USA, Republic of China (hereinafter "ASSIGNORS"), have made a certain invention entitled "METHOD AND APPARATUS FOR PERFORMING TUNNEL SIGNALING OVER IP TUNNELING PATH" for which we are making application for Letters Patent of the United States, which application is being executed concurrently herewith; and

WHEREAS, Samsung Electronics Co., Ltd., a corporation duly organized under the laws of the Republic of Korea, located and doing business at 416, Maetan-dong, Yeongtong-gu, Suwon-si, Gyeonggi-do, Republic of Korea and The Trustees of Columbia University in the City of New York, a non-profit organization located at 412 Low Library, Mail Code 4308, 535 West 116<sup>th</sup> Street, New York, NY 10027, U.S.A. (hereinafter "ASSIGNEES"), is desirous of acquiring the entire right, title and interest in and to the aforementioned invention and the aforementioned application and any and all United States Letters Patent to be obtained on said invention and/or application;

## NOW, THEREFORE, TO ALL WHOM IT MAY CONCERN:

BE IT KNOWN that for good and valuable consideration paid to us by said ASSIGNEES, the receipt and sufficiency of which is hereby acknowledged, we, the ASSIGNORS, by these presents do hereby sell, assign, set over and transfer unto the said ASSIGNEES, its successors, legal representatives or assigns, the entire right, title and interest in and to the aforesaid invention in and for the United States; and in, to and under the aforesaid United States application and any divisional, continuing, substitute or reissue applications or supplementary disclosures which may be filed on said invention in the United States; and our right to file said applications and claim priority under the provisions of any international treaty or convention; and in and to any Letters Patent of the United States issued or granted on said invention and/or said applications;

AND WE HEREBY authorize and request the U.S. Patent and Trademark Office or other issuing authority to issue any and all patents on said invention and/or said applications to said ASSIGNEES as joint assignees;

AND WE HEREBY covenant that we have the full right to convey the entire right, title and interest herein assigned and that we have not executed and will not execute any assignment or other instrument in conflict herewith;

ASSIGNMENT

PATENT REEL: 018437 FRAME: 0839 AND WE HEREBY further covenant and agree to communicate to said ASSIGNEES, or its legal representatives, successors or assigns, any facts relating to said invention, including evidence for interference purposes or other proceedings, whenever requested, and to testify in any interference or in any other legal proceeding, when requested, and to execute and deliver on request all lawful papers required to make any of the foregoing provisions effective; and to perform the aforesaid communicating, executing and delivering, without any payment except expenses and to perform the aforesaid testifying for reasonable compensation; and generally to do everything possible to aid the said ASSIGNEES, its successors, legal representatives or assigns to obtain and enforce proper patent protection on and for said invention in the United States, and likewise we make these provisions binding upon our heirs, legal representatives and/or administrators.

The undersigned hereby grant the firm of Roylance, Abrams, Berdo & Goodman, L.L.P. the power to insert on this assignment any further identification which may be necessary or desirable in order to comply with the rules of the United States Patent and Trademark Office for recordation of this document.

IN WITNESS WHEREOF, I have he	reunder set my hand and seal this 25+1/day of
<u>Sep.</u> , 2006.	Internal and a second
	Sung-Hyuck LEE
Witness	-
IN WITNESS WHEREOF, I have he <u>September</u> , 2006.	reunder set my hand and seal this 25 day of  Bau Soulo  Jong-Ho BANG
Witness	- Jong-110 D/4100
IN WITNESS WHEREOF, I have he, 2006.	reunder set my hand and seal this day of
	Henning Schulzrinne
Witness	-

ASSIGNMENT

PATENT REEL: 018437 FRAME: 0840

IN	WITNESS	WHEREOF,	I	have	hereunder	set	my	hand	and	seal	this	 day	of
		, 2006.											
	Charles-Qi Shen												
W11	tness												

ASSIGNMENT

**RECORDED: 10/18/2006**